

STATE OF TENNESSEE **DEPARTMENT OF HEALTH ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Greg Denton

TDEC-WPC

6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002097

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

K00002097001

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 4.0

Sampler Project Name: TVA-Ash Spill

Station No.:

Project Site No.:

Date/Time Collected:

EMORY004.0RO 01/13/2009 10:00

Sampler's Name:

Larry Everett

County: Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

Field Determinations

pH:

6.96

pH Units

Chlorine, residual: Conductivity:

41

uMHO

Temperature:

6.52 Dissolved Oxygen: 11.86

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	14	mg/L	3.8	10	S Burchfield	1/15/2009	

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	14	mg/L	0.7	1	M Chen	1/15/2009

TEST: Residue, Settleable	ME:	THOD: SM 254	0F	MQL ANALYZED BY: DA		
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	1/14/2009

TEST: Residue, Suspended	ME	THOD: SM 254	0D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/14/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097002

Project Name:

TVA-Ash Spill

Sample Description:

Emory River Mile 2.1

Sampler Project Name: TVA-Ash Spill

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

01/13/2009 10:20

Sampler's Name:

Larry Everett

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

Field Determinations

pH:

7.95

pH Units

Chlorine, residual:

Conductivity:

90

uMHO

Temperature:

4.28 **Dissolved Oxygen: 11.92**

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total METHOD: EPA 310.2							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	26	mg/L	3.8	10	S Burchfield	1/15/2009	

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	26	mg/L	0.7	1	M Chen	1/15/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	S Burchfield	1/14/2009

TEST: Residue, Suspended	ME	THOD: SM 254	0D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	48	mg/L	10	10	S Burchfield	1/14/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA-Ash Spill **Project Site No.:**

Station No.:

EMORY001.7RO 10:45

Sampler's Name:

Date/Time Collected:

01/13/2009 Larry Everett

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: **Send Report To: Agency Invoiced:**

327.34-20 TDEC-WPC TDEC-WPC

Priority Date:

01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

р п.	1.31	ph Units
Chlorine, residua	al:	·
Conductivity:	39	uMHO
Temperature:	6.51	

Dissolved Oxygen: 9.60

Other:

Field Determinations

mg/L

Flow:

CFS

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	13	mg/L	3.8	10	S Burchfield	1/15/2009	

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	13	mg/L	0.7	1	M Chen	1/15/2009

TEST: Residue, Settleable	ME	THOD: SM 254	0F			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	S Burchfield	1/14/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/14/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA-Ash Spill

Project Site No.:

Station No.:

EMORY000.1RO

Date/Time Collected: Sampler's Name:

01/13/2009 11:00

County:

Larry Everett ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC 327.34-20

Billing Code: Send Report To: **Agency Invoiced:**

TDEC-WPC TDEC-WPC

Priority Date: Date/Time Received: 01/20/2009 01/13/2009

Received By:

13:00

Ken Hitchman

Field Determinations

pH: 7.15

Chlorine, residual:

Conductivity: 39

Temperature: 6.52

Dissolved Oxygen: 8.98

mg/L

uMHO

pH Units

Other: Flow:

CFS

TEST: Alkalinity, Total METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	12	mg/L	3.8	10	S Burchfield	1/15/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	1/15/2009

TEST: Residue, Settleable	sidue, Settleable METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	1/14/2009

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/14/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097005

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3 near Hwy 70 bridge

79

Design City No.

Sampler Project Name: TVA-Ash Spill

Project Site No.:

5

Station No.:
Date/Time Collected:

CLINC002.3RO 01/13/2009 11:15

Sampler's Name:

Larry Everett

County: Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency: Billing Code:

Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: Priority Date: TDEC-WPC TDEC-WPC 01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

ANALYTE
Total Alkalinity

Ken Hitchman

TEST: Alkalinity, Total	MET	HOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

mg/L

Field Determinations

Dissolved Oxygen: 10.85

Chlorine, residual:

Conductivity:

Temperature:

7.57

142

9.81

TDS 0.135

S Burchfield

pH Units

uMHO

mg/L

CFS

1/15/2009

:Hq

Other:

Flow:

3.8

10

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	64	mg/L	0.7	1	M Chen	1/15/2009

TEST: Residue, Settleable METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	S Burchfield	1/14/2009

TEST: Residue, Suspended	ME.	THOD: SM 254	0D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/14/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit



STATE OF TENNESSEE DEPARTMENT OF HEALTH ENVIRONMENTAL LABORATORIES

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TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201 TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Greg Denton

TDEC-WPC

6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921 **Lab ID:** K00002097

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

K00002097001

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 4.0

Sampler Project Name: TVA-Ash Spill

Project Site No.:

1

Station No.:

EMORY004.0RO

Date/Time Collected:

01/13/2009 10:00

Sampler's Name: County:

Larry Everett ROANE - 73

Sample Matrix:

EFO:

Water Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC 01/20/2009

Priority Date: Date/Time Received:

TEST: Digestion Metals

01/13/2009 13:00

Received By:

Ken Hitchman

METHOD: EPA 200.2

UNITS

ANALYTE RESULT MDL MQL **ANALYZED BY:** DATE

Field Determinations

Dissolved Oxygen: 11.86

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

6.96

41

6.52

pH Units

uMHO

mg/L

CFS

01/15/2009 **Digestion Metals** M Pattanayek 1/15/2009

TEST: ICP METHOD: EPA 200.7

ANALYTE RESULT MDL MQL **ANALYZED BY:** DATE UNITS 360 A Bass Iron μg/L 2.9 10 1/16/2009

TEST: ICP-MS **METHOD: EPA 200.8 ANALYTE RESULT** MDL MQL **ANALYZED BY:** DATE **UNITS** 430 μg/L 32.0 50 Aluminum M Pattanayek 1/15/2009 0.44J μg/L 1 Antimony 0.33 M Pattanayek 1/15/2009 Arsenic U μg/L 0.93 5 M Pattanayek 1/15/2009 26 5 Barium μg/L 2.5 M Pattanayek 1/15/2009 Beryllium U μg/L 0.11 1 M Pattanayek 1/15/2009 1 Cadmium U μg/L 0.41 M Pattanayek 1/15/2009 5 Chromium U 2.0 μg/L M Pattanayek 1/15/2009 Cobalt 0.33J 0.04 1 μg/L M Pattanayek 1/15/2009 μg/L 1.4 0.38 1 Copper M Pattanayek 1/15/2009 Lead 0.46J μg/L 0.10 1 M Pattanayek 1/15/2009 Manganese 36 μg/L 0.42 1 M Pattanayek 1/15/2009 Nickel 1.2 μg/L 0.25 1 M Pattanayek 1/15/2009 Selenium U 5 μg/L 1.3 M Pattanayek 1/15/2009 Silver U μg/L 0.03 0.25 M Pattanayek 1/15/2009 Thallium U μg/L 0.03 1 M Pattanayek 1/15/2009 Vanadium 8.3 5 μg/L 3.4 M Pattanayek 1/15/2009 Zinc 4.6J 5 μg/L 1.9 M Pattanayek 1/15/2009

K00002097001

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 4.0

Sampler Project Name: TVA-Ash Spill

Project Site No.:

1

Station No.:

EMORY004.0RO

Date/Time Collected: Sampler's Name:

01/13/2009 10:00

County:

Larry Everett

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code: **Send Report To:** TDEC-WPC 327.34-20 TDEC-WPC

Agency Invoiced: Priority Date:

TDEC-WPC 01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

TEST: Mercury

Ken Hitchman

	MET	HOD:	EPA	245.1	
ï		111	UTO		-

Field Determinations

Dissolved Oxygen: 11.86

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

6.96

41

6.52

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/15/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097002 TVA-Ash Spill

Project Name: Sample Description:

Emory River Mile 2.1

Sampler Project Name: TVA-Ash Spill

Project Site No.:

2 **Station No.:**

EMORY002.1RO Date/Time Collected:

Sampler's Name:

01/13/2009 10:20 Larry Everett

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency: Billing Code:

Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: **Priority Date:**

TDEC-WPC TDEC-WPC 01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

Field Determinations

pH: 7.95

Chlorine, residual:

Conductivity:

90

uMHO

pH Units

Temperature:

4.28

Dissolved Oxygen: 11.92

mg/L

Other:

Flow: **CFS**

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/15/2009				M Pattanayek	1/15/2009

TEST: ICP	METHOD: EPA 200.7					
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY: DATE					
Iron	410	μg/L	2.9	10	A Bass	1/16/2009

TEST: ICP-MS	ME.					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	790	μg/L	32.0	50	M Pattanayek	1/15/2009
Antimony	0.83J	μg/L	0.33	1	M Pattanayek	1/15/2009
Arsenic	14	μg/L	0.93	5	M Pattanayek	1/15/2009
Barium	56	μg/L	2.5	5	M Pattanayek	1/15/2009
Beryllium	0.17J	μg/L	0.11	1	M Pattanayek	1/15/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/15/2009
Chromium	2.6J	μg/L	2.0	5	M Pattanayek	1/15/2009
Cobalt	0.70J	μg/L	0.04	1	M Pattanayek	1/15/2009
Copper	2.8	μg/L	0.38	1	M Pattanayek	1/15/2009
Lead	1.1	μg/L	0.10	1	M Pattanayek	1/15/2009
Manganese	51	μg/L	0.42	1	M Pattanayek	1/15/2009
Nickel	1.9	μg/L	0.25	1	M Pattanayek	1/15/2009
Selenium	3.3J	μg/L	1.3	5	M Pattanayek	1/15/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	1/15/2009
Thallium	0.14J	μg/L	0.03	1	M Pattanayek	1/15/2009
Vanadium	16	μg/L	3.4	5	M Pattanayek	1/15/2009
Zinc	3.6J	μg/L	1.9	5	M Pattanayek	1/15/2009

K00002097002

Project Name:

TVA-Ash Spill

Sample Description:

Emory River Mile 2.1

Sampler Project Name: TVA-Ash Spill

2

Project Site No.: Station No.:

EMORY002.1RO

Date/Time Collected:

01/13/2009 10:20

Sampler's Name: County:

Larry Everett ROANE - 73

Sample Matrix:

Water

EFO: Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: Agency Invoiced: 327.34-20 TDEC-WPC TDEC-WPC 01/20/2009

Priority Date:
Date/Time Received:

01/13/2009 13:00

Received By:

TEST: Mercury

Ken Hitchman

	METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/15/2009

Field Determinations

Dissolved Oxygen: 11.92

Chlorine, residual: Conductivity:

Temperature:

7.95

90

4.28

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA-Ash Spill

Project Site No.:

3

Station No.: EMORY001.7RO Date/Time Collected:

Sampler's Name:

01/13/2009 10:45 Larry Everett

County: Sample Matrix: ROANE - 73

EFO: Sampling Agency: Water Knoxville TDEC-WPC 327.34-20

Billing Code: Send Report To: **Agency Invoiced: Priority Date:**

TDEC-WPC TDEC-WPC 01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

Field Determinations pH: 7.31

Chlorine, residual:

Conductivity: 39

Temperature: 6.51 Dissolved Oxygen: 9.60

Other:

CFS Flow:

pH Units

uMHO

mg/L

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/15/2009				M Pattanayek	1/15/2009

TEST: ICP	ST: ICP METHOD: EPA 200.7					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	310	μg/L	2.9	10	A Bass	1/16/2009

TEST: ICP-MS	ME	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	300	μg/L	12.8	20	M Pattanayek	1/15/2009
Antimony	U	μg/L	0.33	1	M Pattanayek	1/15/2009
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/15/2009
Barium	25	μg/L	2.5	5	M Pattanayek	1/15/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/15/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/15/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/15/2009
Cobalt	0.33J	μg/L	0.04	1	M Pattanayek	1/15/2009
Copper	0.96J	μg/L	0.38	1	M Pattanayek	1/15/2009
Lead	0.33J	μg/L	0.10	1	M Pattanayek	1/15/2009
Manganese	34	μg/L	0.42	1	M Pattanayek	1/15/2009
Nickel	1.3	μg/L	0.25	1	M Pattanayek	1/15/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	1/15/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	1/15/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/15/2009
Vanadium	6.3	μg/L	3.4	5	M Pattanayek	1/15/2009
Zinc	3.3J	μg/L	1.9	5	M Pattanayek	1/15/2009

K00002097003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA-Ash Spill

Project Site No.:

3

Station No.:

EMORY001.7RO

Date/Time Collected: Sampler's Name:

01/13/2009 10:45

County:

Larry Everett

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency: Billing Code:

Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC 01/20/2009

Priority Date: Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

TEST: Mercury	METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	μg/L	0.13	0.2	A Wilson	1/15/2009	

Field Determinations

Dissolved Oxygen: 9.60

Chlorine, residual:

Conductivity:

Temperature:

7.31

39

6.51

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097004

Project Name: TVA-Ash Spill Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA-Ash Spill

Project Site No.:

Station No.: EMORY000.1RO Date/Time Collected: 01/13/2009 11:00

Sampler's Name: County:

Larry Everett ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency: Billing Code:

Knoxville TDEC-WPC 327:34-20 TDEC-WPC TDEC-WPC

Send Report To: Agency Invoiced: **Priority Date:**

01/20/2009

Date/Time Received:

13:00 01/13/2009

Received By:

Ken Hitchman

Dis	solved Oxygen:	8.98	mg/L
Otl	ner:		
			0.00

Field Determinations

Chlorine, residual:

Conductivity:

Temperature:

pH:

Flow: CFS

7.15

39

6.52

pH Units

uMHO

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/15/2009				M Pattanayek	1/15/2009

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY: DATE						
Iron	240	μg/L	2.9	10	A Bass	1/16/2009	

TEST: ICP-MS	MET	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	250	μg/L	12.8	20	M Pattanayek	1/15/2009
Antimony	U	μg/L	0.33	1	M Pattanayek	1/15/2009
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/15/2009
Barium	26	μg/L	2.5	5	M Pattanayek	1/15/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/15/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/15/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/15/2009
Cobalt	0.35J	μg/L	0.04	1	M Pattanayek	1/15/2009
Copper	0.82J	μg/L	0.38	1	M Pattanayek	1/15/2009
Lead	0.28J	μg/L	0.10	1	M Pattanayek	1/15/2009
Manganese	37	μg/L	0.42	1	M Pattanayek	1/15/2009
Nickel	1.4	μg/L	0.25	1	M Pattanayek	1/15/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	1/15/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	1/15/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/15/2009
Vanadium	6.6	μg/L	3.4	5	M Pattanayek	1/15/2009
Zinc	3.4J	μg/L	1.9	5	M Pattanayek	1/15/2009

K00002097004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA-Ash Spill

Project Site No.:

4

Station No.:

EMORY000.1RO

Date/Time Collected:

01/13/2009 11:00

Sampler's Name: County:

Larry Everett ROANE - 73

Sample Matrix:

EFO:

Water Knoxville

Sampling Agency: Billing Code:

TDEC-WPC 327.34-20-

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC 01/20/2009

Priority Date: Date/Time Received:

01/13/2009 13:00

Received By:

TEST: Mercury

Ken Hitchman

METHOD:	EPA 245.1	

Field Determinations

Dissolved Oxygen: 8.98

Chlorine, residual:

Conductivity:

Temperature:

:Hq

Other:

Flow:

7.15

39

6.52

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/15/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002097005

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3 near Hwy 70 bridge

Sampler Project Name: TVA-Ash Spill

Project Site No.:

5

Station No.: CLINC002.3RO Date/Time Collected: 01/13/2009 11:15

Sampler's Name: County:

Larry Everett

Sample Matrix:

ROANE - 73 Water

EFO: Sampling Agency: Billing Code:

Knoxville TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced: **Priority Date:**

TDEC-WPC 01/20/2009

Date/Time Received:

01/13/2009 13:00

Received By:

Ken Hitchman

Field Determinations

pH:

7.57

pH Units

uMHO

Chlorine, residual:

Conductivity: Temperature: 142

9.81

Dissolved Oxygen: 10.85

mg/L

Other: Flow:

TDS 0.135

CFS

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/15/2009				M Pattanayek	1/15/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	390	μg/L	2.9	10	A Bass	1/16/2009

TEST: ICP-MS METHOD: EPA 200.8						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	410	μg/L	32.0	50	M Pattanayek	1/15/2009
Antimony	U	μg/L	0.33	1	M Pattanayek	1/15/2009
Arsenic	1.1J	μg/L	0.93	5	M Pattanayek	1/15/2009
Barium	33	μg/L	2.5	5	M Pattanayek	1/15/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/15/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/15/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/15/2009
Cobalt	0.37J	μg/L	0.04	1	M Pattanayek	1/15/2009
Copper	2.9	μg/L	0.38	1	M Pattanayek	1/15/2009
Lead	0.70J	μg/L	0.10	1	M Pattanayek	1/15/2009
Manganese	57	μg/L	0.42	1	M Pattanayek	1/15/2009
Nickel	1.3	μg/L	0.25	1	M Pattanayek	1/15/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	1/15/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	1/15/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/15/2009
Vanadium	5.5	μg/L	3.4	5	M Pattanayek	1/15/2009
Zinc	4.6J	μg/L	1.9	5	M Pattanayek	1/15/2009

K00002097005

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3 near Hwy 70 bridge

Sampler Project Name: TVA-Ash Spill

5

Project Site No.:

Station No.:

CLINC002.3RO

Date/Time Collected:

01/13/2009 11:15

Sampler's Name: County:

Larry Everett ROANE - 73

Sample Matrix:

Water

EFO: Sampling Agency: Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

Billing Code:

TDEC-WPC TDEC-WPC

Priority Date: Date/Time Received: 01/20/2009

01/13/2009 13:00

Received By:

Ken Hitchman

TEST: Mercury	METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	μg/L	0.13	0.2	A Wilson	1/15/2009	

Field Determinations

Chlorine, residual:

Dissolved Oxygen: 10.85

Conductivity:

Temperature:

:Hq

Other:

Flow:

7.57

142

9.81

TDS 0.135

pH Units

uMHO.

mg/L

CFS

J - Estimated value between MDL and MQL

MDL - Method Detection Limit **MQL - Method Quantitation Limit**